CIVIL-TECH CONSULTANTS AND ENGINEERS

Building & Highway Material Testing Laboratory

An ISO 9001:2008 Certified Company

NABL - Accredited Laboratory as per ISO / IEC-17025 : 2005

Job No.: CTCE/BBMP/W.No.04/YBR/WMM/Gradation/2016-17 04.07.2016

GRADATION FOR WMM
MORTH TABLE-400-11

Client : **Asst. Executive Engineer,** Yelahanka New Town Sub Division, BBMP, Bangalore.

Agency : **Mr. Y.B. Ramesh,** Contractor, Bangalore.

Name of Work : Providing pot hole filling in A sector, B sector and Chikkabommasandra in Ward No.04 of Yelahanka New Town Sub Division, BBMP, Bangalore.

Reference : EE(YNK.D)E-PMT-1/W.O/24/2015-16 Dated: 24.02.2016

Date of Testing : 04.07.2016

Material : WMM

Sample Location : WMM Mix Plant Oven Dry Wt (gm): 8620

Is Sieve Size in mm	Weight Retained (gm)	Cumulative Weight Retained (gm)	Cumulative % of Retained	Cumulative % of Passing	Spec.Limits
53	0	0	0	100	100
45	215	215	2.5	97.5	95-100
22.4	2650	2865	33.2	66.8	60-80
11.2	1405	4270	49.5	50.5	40-60
4.75	1250	5520	64.0	36.0	25-40
2.36	1010	6530	75.8	24.2	15-30
0.600	990	7520	87.2	12.8	8-22
0.075	800	8320	96.5	3.5	0-8

Note:

1. The report shall not be reproduced, except in full, without the written approval of the laboratory.
2. The results indicated above are based on the tests carried out on the samples received in the laboratory.
3. Any Query regarding the report must be reported within 30 days from the date of testing.

Civil-Tech Consultants & Engineers Bangalore

Ramsanjeev AE

M/s. Civil-Tech Consultants & Engineers
23/14, 7th Cross, 3rd Stage,
4th Block, Shakthiganapathinagara,
Basaveshwaranagar,
Bangalore-560079.

CIVIL-TECH CONSULTANTS AND ENGINEERS

Building & Highway Material Testing Laboratory

An ISO 9001:2008 Certified Company

NABL - Accredited Laboratory as per ISO / IEC-17025 : 2005

JAS-ANZ BSCIC ISO 9001 REGISTERED

Job No.: CTCE/BBMP/W.No.04/YBR/WMM/AIV/2016-17 04.07.2016

Aggregate Impact Value

IS: 2386 Part IV

Client	**Asst. Executive Engineer,** Yelahanka New Town Sub Division, BBMP, Bangalore.
Agency	**Mr. Y.B. Ramesh,** Contractor, Bangalore.
Name of the Work	Providing pot hole filling in A sector, B sector and Chikkabommasandra in Ward No.04 of Yelahanka New Town Sub Division, BBMP, Bangalore.
Reference	EE(YNK.D)E-PMT-1/W.O/24/2015-16 Dated: 24.02.2016
Source / Location	WMM Plant
Type of Mix	Wet Mix macadam
Date of Testing	04.07.2016

Sl No.	Details	Trial No. 1	Trial No. 2	Average
1	Total weight of aggregate sample filling the cylindrical measure = W_1 g	379	382	
2	Weight of agregate passing 2.36 mm sieve after the test = W_2 g	78	80	
3	Weight of aggregate retained 2.36 mm sieve after the test = W_3 g	301	302	
4	Aggregate Impact value = percent fines	20.58	20.94	
	$100^* (W_3/W_1)$ %			20.76

Comments:

→ Maximum allowable Aggregate Impact value for Wet mix Macadam is 30%

Note:

→ This test report should not be reproduced except in full, without written approval of the laboratory

→ The results indicated above are based on the tests carried out on the samples received in the laborat

→ Any Query regarding the report must be reported within 30 days from the date of testing.

M/s. Civil-Tech Consultants & Engineers
23/14, 7th Cross, 3rd Stage,
4th Block, Shakthiganapathinagara,
Basaveshwaranagar,
Bangalore-560079.

CIVIL-TECH CONSULTANTS AND ENGINEERS

Building & Highway Material Testing Laboratory

An ISO 9001:2008 Certified Company

NABL - Accredited Laboratory as per ISO / IEC-17025 : 2005

JAS-ANZ

BSCIC ISO 9001 REGISTERED

Job No.: CTCE/BBMP/W.No.04/YBR/WMM/S-T/2016-17 04.07.2016

DETERMINATION OF FLAKINESS INDEX & ELONGATION INDEX OF COARSE AGGREGATES

Client	**Asst. Executive Engineer,** Yelahanka New Town Sub Division, BBMP, Bangalore.
Agency	**Mr. Y.B. Ramesh,** Contractor, Bangalore.
Name of Work	Providing pot hole filling in A sector, B sector and Chikkabommasandra in Ward No.04 of Yelahanka New Town Sub Division, BBMP, Bangalore.
Reference	EE(YNKD)E-PMT-1/W.O/24/2015-16 Dated: 24.02.2016
Technical Reference	IS 2386(Part 1) 1963 (RA 2011)
Type of Mix	Wet Mix Macadam
Date of Testing	04.07.2016

Result : Flakiness Index = 12.32%

Elongation Index = 13.90%

Result : Combined Flakiness & Elongation index 26.22%

Comments:

Maximum allowable Flakness & Elongation Index for Wet Mix Macadam is 30%

Note:

→ This test report should not be reproduced except in full, without written approval of the laboratory

→ The results indicated above are based on the tests carried out on the samples received in the laborat

→ Any Query regarding the report must be reported within 30 days from the date of testing.

M/s. Civil-Tech Consultants & Engineers
23/14, 7th Cross, 3rd Stage,
4th Block, Shakthiganapathinagara,
Basaveshwaranagar,
Bangalore-560079.

CIVIL-TECH CONSULTANTS AND ENGINEERS

Building & Highway Material Testing Laboratory

An ISO 9001:2008 Certified Company

NABL - Accredited Laboratory as per ISO / IEC-17025 : 2005

JAS-ANZ BSCIC ISO 9001 REGISTERED

Job No: CTCE/BBMP/W.No.04/YBR/BC/Bitumen/2016-17 07.07.2016

BITUMEN CONTENT AND GRADATION DETERMINATION OF BITUMINOUS CONCRETE

As per IS2386 and IRC:SP:11-1984

CLIENT	Asst. Executive Engineer, Yelahanka New Town Sub Division, BBMP, Bangalore.
AGENCY	Mr. Y.B. Ramesh, Contractor, Bangalore.
NAME OF THE WORK	Providing pot hole filling in A sector, B sector and Chikkabommasandra in Ward No.04 of Yelahanka New Town Sub Division, BBMP, Bangalore.
REFERENCE	EE(YNK.D)E-PMT-1/W.O/24/2015-16 Dated: 24.02.2016
SAMPLE I/D	Pot hole filling in Chikkabommasandra in Ward No.04
DATE OF TESTING	07.07.2016

BITUMEN CONTENT DETERMINATION

Description	Sample 1	Sample 2
1. Weight of Mixture before Test, g	500	500
2. Weight of Mixture after Test, g	470	470
3. Weight of Asphalt and Mineral matter Extracted, g	30	30
4. Weight of Mineral Matter, g	-	-
5. Weight of Ash, g	-	-
6. Weight of Bitumen Extracted, g. (corrected)	30	30
7. Bitumen content in %	6.00	6.00
8. Average	6.00	

GRADATION AFTER EXTRACTION

TABLE - 1

SIEVE SIZE	Percent Passing, %		JOBMIX
mm	Sample 1	Sample 2	Gradation
19	100.00	100.00	100
13.2	85.35	80.29	79-100
9.5	75.98	76.31	70-88
4.75	59.95	60.33	53-71
2.36	44.36	45.15	42-58
1.18	39.23	36.36	34-48
0.6	31.22	30.25	26-38
0.3	23.13	24.26	18-28
0.15	15.25	14.58	12-20
0.075	5.98	6.32	4-10

Note:

⇒ This test report should not be reproduced except in full, without written approval of the laboratory

⇒ The results indicated above are based on the tests carried out on the samples received in the laboratory

⇒ Any Query regarding the report must be reported within 30 days from the date of testing.

Civil-Tech Consultants & Engineers Bangalore

Ram Sanjeev AE

7/7

M/s. Civil-Tech Consultants & Engineers

23/14, 7th Cross, 3rd Stage,

4th Block, Shakthiganapathinagara,

Basaveshwaranagar,

Bangalore-560079.

#23/14, 7th Cross, 3rd Stage, 4th Block, Shakthi Ganapathi Nagara, Basaveshwaranagar, Bangalore-79.

Tele Fax : 23223227, Website : www.civiltechconsultants.com

E-mail : vishwanath.ia@civiltechconsultants.com / info@civiltechconsultants.com